

dipole. Yet the London dipole and the more recent stringless magnetic monopoles are incompatible. In fact, much of the older generation would have flunked school if they had made that proposition. A more "learned" argument excludes the stringless magnetic monopole, because it gives an ambiguity in cohomological classification.

In 1974, I called attention to the here-cited alternative,<sup>6</sup> and the matter was submitted as an NSF proposal for further study. Clearly the monopole forces won out.

One cannot help thinking that this question would have resolved itself long ago had there been less anonymity in refereeing. Throughout our schooling we know the teachers who evaluate us. Why are our years of professional adulthood marred by this primitively medieval and excessively secretive process of peer evaluation?

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E. J. POST

8/84

Playa del Rey, California

## Polonium halos redux

Robert V. Gentry's rebuttal to Robert C. Wyckoff on "polonium halos" (April, page 106) is pompous, simplistic, and evasive. The following comments about absolute, nonradiometric dating and the validity of a creationist explanation for the anomalous halos are intended to clarify the argument.

Not only does the oldest tree ring count, as noted by Wyckoff, go back 7124 years before 1983, but it has been corroborated exactly and *independently* for the past 5418 years.<sup>1</sup> Contrary to Gentry's smokescreen that "we cannot certify that all old tree rings are annual," the bristlecone pine is not susceptible to multiple-ring or missing-ring years as other trees are known to be. This corroboration is important because if bristlecone pine dating were as fraught with problems as creationist critics contend, then reproducible results would be improbable in the extreme.

Besides tree rings, there is another absolute count, even older than the bristlecone pine, which Wyckoff failed to list. This is the Greenland ice cap. The new Dye 3 core reaches back to about 90 000 years before present in a continuous sequence.<sup>2</sup> Absolute dating of annual layers by counting summer peaks of oxygen-18 has reached 3600 years before present, is headed for 7200 years before present, and is capable of being extended to about 10 000 before present.

The annual nature of the layers has been established back to AD 536 by associating dated volcanic eruptions with the resulting acidity in the ice.<sup>3</sup> Since nothing in the older ice indicates that conditions were grossly different than for the recent ice, the annual nature of the layers appears secure.

Thus Gentry's 6000-year horizon is exceeded by two different, *nonradiometric* datings. While he may not consider them the "coercive evidence" he likes to talk about, they are compelling enough that he ought to be moved to reexamine the creationist origin of the anomalous polonium halos.

A related episode is revealing. In 1976, Gentry thought<sup>4</sup> giant halos in Madagascan mica indicated the existence of superheavy elements with atomic numbers of 116, 124, and 126. Subsequent work by others showed<sup>5</sup> that the giant halos could also be explained by water in the mica providing protons that are scattered by alpha-particles from common alpha emitters. The evidence for the superheavy elements was later reported invalid.<sup>6</sup> Therefore, it is at least conceivable that Gentry's creationist explanation for the anomalous polonium halos is also invalid and that they can be explained by conventional phenomena, perhaps even water in the inclusions.

It is curious that in all of Gentry's references, nowhere does one find either discussion or mention of this alternative explanation. As long as Gentry is both fallible and blind to alternatives, his challenge "to synthesize a piece of granite with polonium halos as means of falsifying [its virtually instantaneous creation]" is both presumptuous and irrelevant.

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## letters

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C. LEROY ELLENBERGER

Senior Editor, *Kronos*

St. Louis, Missouri

4/84

THE AUTHOR COMMENTS: All of Ellenberger's examples of absolute dating are based on the fallacious idea that the rates of geological processes have been constant. In particular, his claim that bristlecone pines do not produce multiple rings is directly contradicted<sup>1</sup> by experimental evidence. On a more fundamental level, all types of geologic and radiometric dating methods are undergirded by the uniformitarian principle, which is actually only an assumption that physical laws have remained unchanged throughout time.<sup>2</sup> This evolutionary premise is contradicted by the occurrence of polonium halos in Precambrian granites, a phenomenon I have suggested<sup>2,3</sup> is evidence of a virtually instantaneous creation of these rocks. I have challenged my evolutionary colleagues to synthesize a piece of granite with polonium halos as a means of falsifying this interpretation, but this has not been done. If the uniformitarian principle were valid, there is no reason why this synthesis should not be possible. Failure to meet this challenge provides unambiguous evidence that the uniformitarian principle is false.<sup>2</sup> Without the uniformitarian principle, none of the "absolute" dating methods referred to by Ellenberger have any credible basis.

Nearly all of Ellenberger's remarks about my involvement with superheavy elements in 1976 are in error. He is wrong in claiming that giant halos were subsequently explained by alpha-proton scattering from water; at the 1978 International Symposium on Superheavy Elements I showed there was no experimental evidence to support this hypothesis. On this basis alone, Ellenberger's accusation that I have ignored a potential explanation of the polonium halos is groundless. Moreover, if he had taken time to carefully understand the proton scattering hypothesis, he would have realized that it is not applicable to the point-like centers of the polonium halos. Also, an accurate reading of my reports would have made him aware that those radiocenters do not contain fluid inclusion.<sup>3</sup>

Lastly, by citing only the first author in his sixth reference, Ellenberger left the impression that I was not involved in the follow-up experiments on giant halos. A news account<sup>6</sup> of the 1978 symposium shows I reported on those experiments and retracted the initial claim of evidence for superheavy elements, something others in the original

experiments did not do. I believe my involvement with superheavy elements is indicative of an attitude different from what Ellenberger pictured in his letter; namely, I am willing to admit mistakes and change my views when the evidence demands it. As of this writing, the evidence that God placed his fingerprints in the primordial rocks of this earth stands on a firmer basis than ever before.<sup>2</sup> My colleagues in physics might reflect on the possibility that the Creator of the Universe is attempting to gain their attention through a unique and nonreproducible radioactive phenomenon in earth's basement rocks.

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ROBERT V. GENTRY  
Knoxville, Tennessee

8/84

## Peer reviews

On the basis of a small amount of evidence, I put forth the hypothesis that peer reviews are too often irresponsible, if not malicious and legally defamatory. In the manner that many recognize and often practice as the scientific method, I am now in the process of gathering evidence to confirm my hypothesis. For this purpose I am requesting anecdotal material from those who believe they have had their opportunities in physics restricted by irresponsible peer reviews.

Perhaps all such problems would disappear if there were adequate funding for physics research. Perhaps the worst problems would be diminished if legal actions were occasionally undertaken. Perhaps just occasional reminders of the requirement of responsibility for the success of the system would minimize the rest of the problems. Perhaps there really are not as many problems as I guess, in which case there should be very little response to my request.

All letters will be treated in confidence, none will be photocopied, and none will pass the 49th parallel a second time. Conclusions based upon the evidence gathered will be presented to the Committee on Opportunities in